



➤ APPLICATION BULLETIN

TPE Phase Barriers For Enhanced Molded Case Circuit Breaker Service Life

Support the long-term reliability of molded case circuit breakers (MCCBs), with non-halogen flame retardant thermoplastic elastomers (TPEs) for phase barriers. Developed for enhanced fire performance and safety compliance, these innovative materials offer excellent flexibility, low moisture absorption, and enhanced durability. They are suitable for applications that require stringent fire safety standards such as phase barriers in molded case circuit breakers.

	ONFLEX™ S HF	ONFLEX™ S HF, HF 7001 & NHFR 7001
Commercial Availability	Asia	Europe
RoHS Compliant	Yes	Yes
Color	Natural	Natural
Hardness	70/80/90 Shore A	50/70/90 Shore A
Flame Retardant Package	Non-Halogenated	Non-Halogenated
Processing Method	Injection Molding Extrusion	Injection Molding



HOW PHASE BARRIERS MADE OF AVIENT TPES MAKE THE DIFFERENCE FOR MOLDED CASE CIRCUIT BREAKERS

Designed for reliable flame performance – Our non-halogenated flame retardant TPES have been developed for applications that require stringent fire safety standards. They help reduce smoke density and toxicity and can meet UL 94 V-0.

Easier to install – Our TPES provide greater flexibility compared to nylon and flexible PVC, which makes the MCCB easier to install, service and inspect.

Low moisture absorption – Our TPES exhibit low moisture absorption and maintain the necessary dielectric properties over the MCCB's service life compared to nylon which is more water absorbent and can lose dielectric performance in the presence of excessive water.

Good insulation between phases – Compared to nylon, our materials deliver superior dielectric properties that are equivalent to flexible PVC, helping to prevent arc flash across the phases.

RoHS compliant – Our OnFlex S HF, HF 7001, and NHFR 7001 comply with all relevant regulations, including RoHS and REACH SVHC, and specific grades also qualify as UL 94 V-0.

To learn more, please visit avient.com
or call +1.844.4AVIENT (1.844.428.4368).

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